

## POST-TREATMENT OF A POLYMERIC COMPOSITION

### Abstract

A post-treatment product and process for making a water-resistant polymeric coating or a strongly-swellable polymeric gel includes providing a stable, aqueous two-phase polymeric composition by the steps of forming a reaction mixture in a reaction vessel which includes a water-soluble vinyl monomer, optionally with one or more water-soluble comonomers, a first amount of a crosslinking agent, and water, heating the mixture, then periodically adding a predetermined amount of an initiator, and polymerizing at about 30-130°C, optionally removing the resultant two-phase composition from the reaction vessel, adding a predetermined amount of additional crosslinker or proteinaceous compound thereto, optionally coating the mixture onto a support, and optionally heating to further polymerize or process the mixture.